AMENDMENTS TO THE SPECIFICATION

In the Specification: BEST AVAILABLE COPY

Please amend the paragraph beginning at page 6, line 4, as follows:

-- The inventors of the present invention have found that resist residue defects may include large circular clusters of silicon spires, which range in size from about 3 to 5 microns in diameter. In addition, it was found that product type wafers ~~process~~ processed using standard or normal vapor prime and development operations may have these defects in densities between about 40 and 60 defects per square centimeter after poly etch. The cause for these defects has been identified as residing largely in the photolithographic operations. In addition, it has been discovered that these defects include carbon, nitrogen, and sulfur (*e.g.*, commonly associated with photoresist processes), and additionally contained significant amounts of calcium accompanied by fluorine, possibly present as CaF. The calcium content is believed to allow such defects to withstand the rigors of aggressive plasma etch, and hence creates a hard etch mask, which prevents proper processing of the structure where such defects exist. In addition, it is believed that the contamination does not originate in the ~~develop inspection~~ deionized water (DI) water, but rather the resist/developer is believed to be the source.--

Please amend the paragraph beginning at page 10, line 23, as follows:

-- The invention may further provide for modification of processing and/or materials employed in a vapor priming operation. For instance the methodologies of the invention can comprise performing a vapor priming operation of short duration using a mild priming agent prior to applying the photoresist. In this regard, the duration of the vapor priming operation can be in the range of about 5 to 20 seconds, and the priming agent can be an HMDS priming agent, as opposed to MP-90 type employed in standard processes. During such vapor priming, the structure can be held at a temperature in the range of about 85 to 130 degrees C. Alternatively or in combination, the selective exposure of the first portion of the photoresist coat can comprise baking the structure at a

post exposure bake ~~(PBE)~~ (PEB) temperature of at least about 120 degrees C. The method may include other process variations from the standard process, for example, descumming the structure and performing a polysilicon etch operation on the structure, such as including an overetch duration of at least about 30 seconds. The invention further provides systems for performing such techniques.--

Please amend the paragraph beginning at page 14, line 11, as follows:

--The invention may further provide for modification of processing and/or materials employed in the vapor priming operation at 202. For instance the methodologies of the invention can comprise performing a vapor priming operation of short duration using a mild priming agent prior to applying the photoresist. In this regard, the duration of the vapor priming operation can be in the range of about 5 to 20 seconds, and the priming agent can be an HMDS priming agent, as opposed to MP-90 type employed in standard processes (*e.g.*, process 100). During such vapor priming, the structure can be held at a temperature in the range of about 85 to 130 degrees C, as opposed to 50 to 180 degrees C used in the standard process. Alternatively or in combination, the selective exposure at 206 of the photoresist coat can comprise baking the structure at a post exposure bake ~~(PBE)~~ (PEB) temperature of at least about 120 degrees C. The method 200 and other methods in accordance with the invention may employ other process variations, along or in combination, from the standard process, for example, descumming the structure and performing a polysilicon etch operation on the structure at 210, such as including an overetch duration of at least about 30 seconds.--